

**To:** Wu, Jennifer[Wu.Jennifer@epa.gov]  
**Cc:** FOSTER Eugene P[FOSTER.Eugene@deq.state.or.us]; SEEDS Joshua[SEEDS.Joshua@deq.state.or.us]; WALTZ David[Waltz.David@deq.state.or.us]; BRANNAN Kevin[BRANNAN.Kevin@deq.state.or.us]; Carlin, Jayne[Carlin.Jayne@epa.gov]; Laura Blake[Laura.Blake@cadmusgroup.com]  
**From:** MICHIE Ryan  
**Sent:** Wed 4/3/2013 3:27:24 PM  
**Subject:** RE: grant project idea

Will do. I'll send it over before the meeting at 11:30.

**From:** Wu, Jennifer [mailto:Wu.Jennifer@epa.gov]  
**Sent:** Tuesday, April 02, 2013 3:03 PM  
**To:** MICHIE Ryan  
**Cc:** FOSTER Eugene P; SEEDS Joshua; WALTZ David; BRANNAN Kevin; Carlin, Jayne; Laura Blake  
**Subject:** RE: grant project idea

Great! Thanks, Ryan. If you could also send a 1-paragraph description of what it would involve, that would be helpful. Similar to what we did for the HSPF model work for Kevin, we could add that to our existing task order to expedite the contract process.

Here's an example of the work description that Kevin put together:

ODEQ requests assistance in the setup, management, and running of water quality model calibration using source-models, HSPF, and PEST for the Big Elk Creek Bacteria TMDL. The water quality model being used in the Big Elk Creek Bacteria TMDL is a hybrid of standalone source models that feed input to the Watershed model HSPF. When PEST is used to calibrate this hybrid-model, batch files will need to be created to manage the running and linking of the sub-models to HSPF. Template files for the source models that are used by PEST will also need to be created. Several utility programs from PEST will be needed to process model output for use in the objective functions. The input files for the utility programs will need to be created. The last component will be the development of the PEST control file for the calibration. The scope of the work would only include the preliminary tasks in calibrating the model listed above. Once these tasks are completed, ODEQ will use the work products to conduct the calibration. R programming experience is necessary for this work because the sub-models are coded in R.

**From:** MICHIE Ryan [<mailto:Michie.Ryan@deq.state.or.us>]  
**Sent:** Tuesday, April 02, 2013 2:59 PM  
**To:** Wu, Jennifer  
**Cc:** FOSTER Eugene P; SEEDS Joshua; WALTZ David; BRANNAN Kevin; Carlin, Jayne; Laura Blake  
**Subject:** RE: grant project idea

Hi Jenny,

I'm available.

**From:** Wu, Jennifer [<mailto:Wu.Jennifer@epa.gov>]  
**Sent:** Tuesday, April 02, 2013 2:54 PM  
**To:** MICHIE Ryan  
**Cc:** FOSTER Eugene P; SEEDS Joshua; WALTZ David; BRANNAN Kevin; Carlin, Jayne; Laura Blake  
**Subject:** RE: grant project idea

Are you free to talk about this with Cadmus tomorrow from 11:30-12pm? We're talking with Kevin at 11am on HSPF modeling in Big Elk Creek, but thought that it would only take half an hour. They think they can do the digitizing.

If you are, the call-in is Nonresponsive pin Nonresponsive Otherwise, I can set something else up or you should feel free to contact Laura Blake of Cadmus directly.

**From:** MICHIE Ryan [<mailto:Michie.Ryan@deq.state.or.us>]  
**Sent:** Monday, April 01, 2013 5:34 PM  
**To:** Wu, Jennifer  
**Cc:** FOSTER Eugene P; SEEDS Joshua; WALTZ David  
**Subject:** grant project idea

Hi Jenny,

I was talking to Gene and we came up with another potential grant project idea.

The project would be to digitize all the roads in the Mid-Coast using LiDAR and/or aerial photos. The main priority would be roads in sediment TMDL watersheds but ideally we would could finish it or expand to other watersheds using DEQ interns once the grant money runs out.

The problem with the current road database is that it is very inaccurate and doesn't include most of the forest roads. It is more or less grunt work but I think someone could pump it out in less than a month and it would be a very useful data layer down the road (no pun intended).

—

Ryan Michie

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